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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/606,419	06/28/2000	Scott S. Firestone	CISCP155/1539	6069

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EXAMINER
RAO, ANAND SHASHIKANT

ART UNIT	PAPER NUMBER
2613	7

DATE MAILED: 03/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/606,419	Applicant(s) FIRESTONE, SCOTT S.	
	Examiner Andy S. Rao	Art Unit 2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-38* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-38 are rejected under 35 U.S.C. 102(e) as being anticipated by Zhu (US Patent: 6,201,834).

Zhu discloses a method for preparing a compressed audio, video, or multimedia bitstream (Zhu: column 3, lines 10-20) to facilitate real time streaming of the bitstream (Zhu: column 2, lines 1-6), the method comprising: parsing the bitstream to identify network packet boundaries in the bitstream (Zhu: column 4, lines 7-23); annotating the bitstream with network packet information specifying the network packet information (Zhu: column 4, lines 25-30) such that a streaming apparatus can use the network packet information to rapidly divide the bitstream into network packets for real-time streaming (Zhu: column 5, lines 35-48), as in claim 1.

Regarding claim 2, Zhu discloses that the network packet information includes an index (Zhu: column 6, lines 1-25), as specified.

Regarding claim 3, Zhu discloses that the index includes starting and ending byte locations for MPEG packets (Zhu: column 6, lines 15-25; column 1, lines 45-55), as in the claim.

Regarding claims 4-6, Zhu discloses inserting the index into elementary video stream (Zhu: column 6, lines 1-25), as in the claims.

Regarding claim 7, Zhu discloses a length label specifying how many bits are to be included in the network packet (Zhu: column 3, lines 55-65), as in the claim.

Regarding claim 8, Zhu discloses a type designation indicating the type of data from the bitstream (Zhu: column 4, lines 40-50), as in the claim.

Regarding claim 9, Zhu discloses that the network packet information includes an index specifying a byte position in the bitstream (Zhu: column 1, lines 1-25), as in the claim.

Regarding claims 10-11, Zhu discloses the creation of a modified system stream (Zhu: column 5, lines 23-35), as in the claims.

Regarding claim 12, Zhu discloses that the modified system stream is an MPEG bitstream (Zhu: column 1, lines 50-55), as in the claim.

Regarding claims 13-14, Zhu discloses that the beginning of the network boundary is located according to a start code included in the MPEG bitstream (Zhu: column 6, lines 30-35), as in the claim.

Regarding claim 15, Zhu discloses that the network packet information includes network packet header information (Zhu: column 4, lines 37-42), as in the claim.

Regarding claim 16, Zhu discloses that the network packet boundaries are variably sized (Zhu: column 3, lines 55-65), as in the claims.

Regarding claim 17, Zhu discloses that the network packet boundaries are constant sized (Zhu: column 4, lines 13-17), as in the claim.

Regarding claim 18, Zhu discloses adding a flag to the bitstream which signals that the bitstream is annotated (Zhu: column 6, liens 35-40), as in the claim.

Zhu discloses a computer program product (Zhu: column 2, lines 18-25) comprising a machine readable medium on which is provided instructions (Zhu: column 1, lines 15-20; column 1 lines 35-37) for preparing a compressed audio, video, or multimedia bitstream (Zhu: column 3, lines 10-20) to facilitate real time streaming of the bitstream (Zhu: column 2, lines 1-6), the instructions comprising: parsing the bitstream to identify network packet boundaries in the bitstream (Zhu: column 4, lines 7-23); annotating the bitstream with network packet information specifying the network packet information (Zhu: column 4, lines 25-30) such that a streaming apparatus can use the network packet information to rapidly divide the bitstream into network packets for real-time streaming (Zhu: column 5, lines 35-48), as in claim 19.

Regarding claim 20, Zhu discloses that the network packet information includes an index (Zhu: column 6, lines 1-25), as specified.

Regarding claim 21-22, Zhu discloses that the bitstream is an MPEG bitstream (Zhu: column 6, lines 15-25; column 1, lines 45-55), as in the claims.

Regarding claims 23, Zhu discloses that the network packet information specifies network packet boundaries (Zhu: column 4, lines 23-25), as in the claim.

Zhu discloses of performing (Zhu: column 3, lines 10-20) real time streaming a bitstream (Zhu: column 2, lines 1-6), the method comprising: parsing the bitstream to identify network packet boundaries in the bitstream (Zhu: column 4, lines 7-23); annotating the bitstream with network packet information specifying the network packet information (Zhu: column 4, lines 25-30); storing the annotated bitstream (Zhu: column 5, lines 1-10); block streaming the bitstream in real-time using the network packet information to divide the bitstream into network packets (Zhu: column 5, lines 35-48), as in claim 24.

Regarding claim 25, Zhu further discloses that the annotated bitstream is a RTP bitstream (Zhu: column 5, lines 25-35), as in the claim.

Regarding claim 26, Zhu further discloses demultiplexing the bitstream (Zhu: column 1, lines 60-67), as in the claim.

Regarding claims 27-28, Zhu further discloses that the bitstream is annotated with network packet information (Zhu: column 4, lines 24-29), as in the claim.

Zhu discloses a system for transmitting (Zhu: column 3, lines 10-20) a compressed audio, video, or multimedia bitstream (Zhu: column 2, lines 1-6; figure 1), the system comprising: a demultiplexer (Zhu: column 1, lines 63-6); a segmentor capable of annotating the bitstream with network packet information specifying the network packet boundaries (Zhu: column 4, lines 25-30); a multiplexer (Zhu: column 1, lines 24-34); a streaming apparatus that uses the network packet information to divide the bitstream into network packets for real-time streaming (Zhu: column 5, lines 35-48), as in claim 29.

Regarding claim 30, Zhu further discloses producing an annotated video stream containing the network packet information (Zhu: column 5, lines 25-35), as in the claim.

Regarding claims 31-33, Zhu further discloses demultiplexing the bitstream (Zhu: column 1, lines 60-67), as in the claim.

Regarding claims 34-35, Zhu further discloses producing a modified bitstream including the network packet information specifying network packet boundaries (Zhu: column 5, lines 1-10), as in the claims.

Regarding claim 36, Zhu discloses that the streaming apparatus uses a single block copy for a network packet for real-time streaming (Zhu: column 6, lines 35-40), as in the claim.

Zhu discloses a system for transmitting (Zhu: column 3, lines 10-20) a compressed audio, video, or multimedia bitstream (Zhu: column 2, lines 1-6; figure 1), the system comprising: a demultiplexer for separating a system stream into an audio stream and a video stream (Zhu: column 1, lines 63-6); a segmentor capable of annotating the video stream with network packet information specifying the network packet boundaries (Zhu: column 4, lines 25-30); a multiplexer for combining the audio and video streams into a modified system stream (Zhu: column 1, lines 24-34); a streaming apparatus for dividing the modified system bitstream into network packets for real-time streaming using the network packet information (Zhu: column 5, lines 35-48), as in claim 37.

Zhu discloses a system for transmitting (Zhu: column 3, lines 10-20) a compressed audio, video, or multimedia bitstream (Zhu: column 2, lines 1-6; figure 1), the system comprising: means for separating a system stream into an audio stream and a video stream (Zhu: column 1, lines 63-6); means for annotating the video stream with network packet information specifying the network packet boundaries (Zhu: column 4, lines 25-30); means for combining the audio and video streams into a modified system stream (Zhu: column 1, lines 24-34); and means for

dividing the modified system bitstream into network packets for real-time streaming using the network packet information (Zhu: column 5, lines 35-48), as in claim 38.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Rhee discloses a method and systems for forward error correction based loss recovery for interactive video transmission. Zhu discloses a method and apparatus for transmission of a flexible and error resilient video bitstream. Agarwal discloses active techniques for video transmission and playback.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andy S. Rao whose telephone number is (703)-305-4813. The examiner can normally be reached on Monday-Friday 8 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris S. Kelley can be reached on (703)-305-4856. The fax phone numbers for the organization where this application or proceeding is assigned are (703)-308-6606 for regular communications and (703)-308-6606 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-305-4700.

Andy S. Rao
Primary Examiner
Art Unit 2613

ANDY RAO
PRIMARY EXAMINER

asr
March 21, 2003